

LARGE DATABASE SEARCH USING CAM AND HASH

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10	search engine	228a-d	paths
12	controller		
14	hash function	300	search engine
16	memory	310	H-CAM
16a	base region	312	controller
16b	conflicts region	314	memory
18	address bus	314a	base region
20	result bus	314b-e	conflicts regions
		316	search data bus
50	search engine	318	address bus
52	controller	320	result bus
54	CAM	322a-d	hash units
56	memory	324a-d	CAM units
58	search data bus	326	logic unit
60	address bus	328a-j	paths
62	result bus		
		400	search engine
100	search engine	410	H-CAM
110	hash pointer unit	412	controller
112	controller	414	memory
114	memory	414a	base region
116	hash function	414b-c	conflicts regions
118	address bus	416	search data bus
120	pointer bus	418	address bus
122	result bus	420	result bus
		422a-b	hash units
200	search engine	424a-b	CAM units
210	H-CAM	426	logic unit
212	controller	428a-e	paths
214	memory	430	programming unit
214a	base region		
214b	conflicts region	500	process
216	search data bus	510-550	steps
218	address bus		
220	result bus	600	search engine
222	hash unit	610	H-CAM
224	CAM unit	612	controller
226	logic unit	614	memory

620 result bus  
 622 hash unit  
 624 CAM unit  
 640 logic unit  
 652 comparison section  
 654 search data storage  
 656 comparator  
 658 logic unit  
 660 hash pointer memory  
 662 search data memory  
 664 hit line  
  
 700 search engine  
 710 H-RAM  
 712 controller  
 714 memory  
 722 hash unit  
 740 logic unit  
 752 comparison section  
 754 search data storage  
 756 comparator  
 758 logic unit  
 766 comparison section  
  
 800 search engine  
 810 H-CAM  
 812 controller  
 814 memory  
 862 hash blocks  
 864 CAM block  
 866 comparison section  
 868 main logic unit  
 870 input logic sub-units  
 872 hash unit  
 874 input logic sub-unit  
 876 CAM units

878 output logic sub-unit  
 880 search data storage  
 882 comparator  
 884 output logic sub-unit  
 886 input path  
 888 hit line  
  
 900 search engine  
 910 H-CAMs  
 912 controller  
 914 memory  
 916 search data bus  
 918 address bus  
 920 result bus  
 922 expansion bus  
 924 hit line  
  
 1000 search engine  
 1010 H-RAMs  
 1012 controller  
 1014 memory  
 1016 search data bus  
 1018 address bus  
 1020 result bus  
 1022 expansion bus  
  
 1100 search engine  
 1110a CAMs  
 1110b H-CAMs  
 1110c H-RAMs  
 1112 controller  
 1114 memory  
 1116 search data bus  
 1118 address bus  
 1120 result bus  
 1122 expansion bus

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